

Manuals+

[Q & A](#) | [Deep Search](#) | [Upload](#)

[manuals.plus](#) /

- › [Juniper Networks](#) /
- › [Juniper Networks QFX-EM-4Q Expansion Module User Manual](#)

Juniper Networks QFX-EM-4Q

User Manual

Juniper Networks QFX-EM-4Q Expansion Module

1. PRODUCT OVERVIEW

The Juniper Networks QFX-EM-4Q is an expansion module designed for the QFX5100-24Q switch. It provides four additional QSFP+ ports, significantly increasing the port density and connectivity options of the host switch. This module is engineered for seamless integration and can be hot-inserted or hot-removed without disrupting the switch's normal operation.

Each QSFP+ port on the QFX-EM-4Q is configured as a native 40 Gigabit Ethernet (GbE) port, supporting high-speed data networking and optical network applications. It is a critical component for expanding the capabilities of your Juniper QFX5100 series switch infrastructure.



Figure 1: Front view of the Juniper Networks QFX-EM-4Q expansion module. This image displays the module's faceplate, featuring four QSFP+ transceiver slots, various indicator LEDs, and two RJ45 Ethernet ports for management or other functions. The module also includes mounting screws on either side for secure installation into a compatible switch chassis.

2. KEY FEATURES

- **Enhanced Port Density:** Adds four QSFP+ ports to the QFX5100-24Q switch.
- **High-Speed Connectivity:** Each QSFP+ port supports native 40 Gigabit Ethernet.
- **Hot-Swappable:** Can be inserted or removed while the switch is operational, minimizing downtime.
- **Seamless Integration:** Designed specifically as a companion module for the Juniper QFX5100-24Q.
- **Data Networking & Optical Network Support:** Ideal for high-bandwidth applications.

3. INSTALLATION AND SETUP

This section provides instructions for safely installing the QFX-EM-4Q expansion module into a compatible Juniper QFX5100-24Q switch.

3.1 Safety Precautions

- Ensure the switch is properly grounded before installation.
- Wear an electrostatic discharge (ESD) wrist strap connected to a grounded surface when handling the module.
- Do not force the module into the slot; it should slide in smoothly.
- Refer to the QFX5100 switch documentation for specific chassis slot locations and power requirements.

3.2 Installation Steps

1. Identify an available expansion module bay on the front panel of your QFX5100-24Q switch. The QFX5100-24Q has two such bays.
2. If a blank panel is installed, carefully remove it by loosening any retaining screws and pulling it out.
3. Orient the QFX-EM-4Q module so that the faceplate aligns with the switch's front panel and the module slides into the bay correctly.
4. Gently slide the module into the bay until it is fully seated. You may feel a slight click as it connects to the backplane.
5. Secure the module in place by tightening the captive screws on either side of the module's faceplate.
6. Once installed, the switch should automatically detect the new module. Verify its status through the switch's command-line interface (CLI) or management interface.

4. OPERATION

The QFX-EM-4Q module operates as an integrated part of the Juniper QFX5100-24Q switch. Once installed and detected, its QSFP+ ports become available for configuration and use.

4.1 Port Configuration

The four QSFP+ ports on the QFX-EM-4Q module are designed to operate as native 40 Gigabit Ethernet interfaces. They do not support channelization into multiple 10GbE links. Configuration of these ports, including IP addressing, VLAN assignments, and routing protocols, is performed via the Juniper Junos OS CLI or J-Web interface, similar to other ports on the QFX5100 switch.

Refer to the Juniper Networks Junos OS documentation for detailed instructions on configuring network interfaces and services.

4.2 Status Indicators

The module may feature LED indicators on its faceplate to provide visual status. Common indicators include:

- **Status LED:** Indicates the overall operational status of the module (e.g., green for operational, amber for fault).

- **Link/Activity LEDs:** Per-port LEDs indicating link presence and data activity for each QSFP+ port.

Consult the QFX5100 switch hardware guide for a precise description of all LED behaviors.

5. MAINTENANCE

The QFX-EM-4Q expansion module is designed for high reliability and requires minimal routine maintenance. However, proper handling and environmental conditions are crucial for its longevity.

5.1 Cleaning

- Keep the module's ports and connectors free from dust and debris.
- Use a lint-free cloth and, if necessary, a mild, non-abrasive cleaning solution specifically designed for electronic components.
- Ensure all power is disconnected from the switch before performing any cleaning that involves removing the module.

5.2 Environmental Considerations

- Operate the module within the specified temperature and humidity ranges of the QFX5100 switch.
- Ensure adequate airflow around the switch chassis to prevent overheating.

6. TROUBLESHOOTING

This section provides basic troubleshooting steps for common issues encountered with the QFX-EM-4Q expansion module.

6.1 Module Not Detected

- **Re-seat the Module:** Carefully remove the module and re-insert it, ensuring it is fully seated and the captive screws are tightened.
- **Verify Compatibility:** Confirm that the QFX-EM-4Q is compatible with your specific QFX5100 switch model and Junos OS version.
- **Check Switch Status:** Ensure the host QFX5100 switch is powered on and operating normally.

6.2 Port Link Issues

- **Check Cables:** Ensure QSFP+ transceivers and fiber optic cables are correctly installed and not damaged.
- **Verify Transceiver Compatibility:** Use only Juniper-supported QSFP+ transceivers.
- **Port Configuration:** Confirm that the port is enabled and correctly configured in Junos OS.
- **Peer Device Status:** Check the status of the device connected to the QSFP+ port.

6.3 Persistent Faults

If issues persist after basic troubleshooting, consult the Juniper Networks technical documentation for the QFX5100 series switches or contact Juniper Networks technical support for assistance.

7. SPECIFICATIONS

Attribute	Value
-----------	-------

Attribute	Value
Model Number	QFX-EM-4Q
Brand	Juniper Networks
Number of Ports	4
Port Type	QSFP+ (40 Gigabit Ethernet)
Compatibility	Juniper QFX5100-24Q Switch
Hot-Swappable	Yes
Package Dimensions	12 x 6 x 4 inches
Item Weight	1.2 pounds
UPC	832938064973
Date First Available	April 11, 2014

8. WARRANTY AND SUPPORT

For information regarding the warranty coverage for your Juniper Networks QFX-EM-4Q expansion module, please refer to the official Juniper Networks warranty policy document available on their website or contact your authorized Juniper Networks reseller.

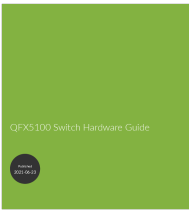
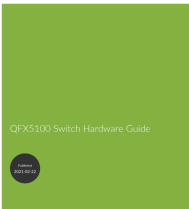
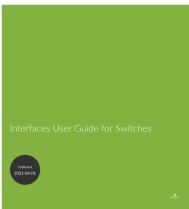
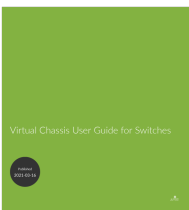
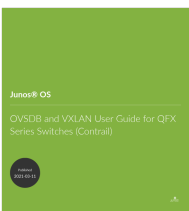
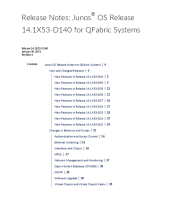
Technical support for this product is provided by Juniper Networks. For assistance with installation, configuration, troubleshooting, or any other technical inquiries, please visit the official Juniper Networks support portal or contact their customer service. Ensure you have your product model number (QFX-EM-4Q) and any relevant serial numbers ready when seeking support.

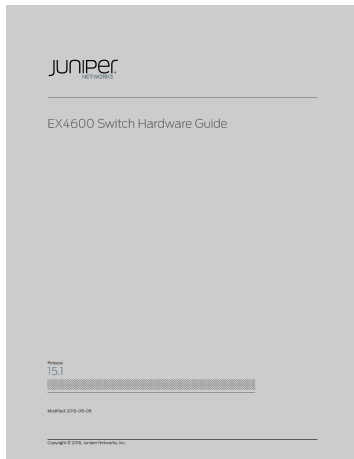
Juniper Networks Official Website: www.juniper.net

Juniper Networks Support: support.juniper.net



Related Documents - QFX-EM-4Q

	Juniper QFX5100 Switch Hardware Guide Comprehensive guide to Juniper Networks QFX5100 series switches, covering hardware specifications, installation, site planning, maintenance, and troubleshooting.
	Juniper QFX5100 Switch Hardware Guide Comprehensive hardware guide for Juniper Networks QFX5100 series switches, detailing installation, configuration, maintenance, troubleshooting, and specifications for data center and campus network environments.
	Juniper Networks Interfaces User Guide for Switches Configuration Comprehensive guide to configuring network interfaces on Juniper Networks switches, covering physical, logical, aggregated, and optical transport interfaces, along with monitoring and troubleshooting.
	Juniper Networks Virtual Chassis User Guide for Switches A comprehensive guide to setting up, configuring, and managing Juniper Networks EX and QFX Series switches in a Virtual Chassis configuration. Learn about benefits, basics, components, and advanced features like high availability and software upgrades.
	Junos OS OVSDb and VXLAN User Guide for QFX Series Switches A comprehensive guide detailing the configuration and monitoring of Open vSwitch Database (OVSDb) and Virtual Extensible LAN (VXLAN) technologies on Juniper Networks QFX Series switches, particularly in environments utilizing Contrail.
	Release Notes: Junos OS 14.1X53-D140 for QFabric Systems This document provides release notes for Junos OS Release 14.1X53-D140 for QFabric Systems, detailing new and changed features, known issues, and resolved problems in the hardware and software.

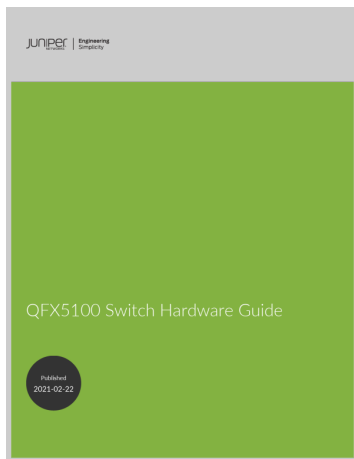


[\[pdf\]](#) Instructions Guide

EX4600 Switch Hardware Guide Juniper Networks E mail—Sendyourcommentstotechpubs comments@juniper.net Includethedocument ortopicname URLorpagenumber andsoftwareversion ifapplicable RequestingTechnicalSupport Figure 42 Removing a QFX EM 4Q Expansion Module from an Indicates important features or instructions mmo 23327433 1477035481 2973 28266 23327435 1479311018 7286 5277 s eet eu icmedia

EX4600 Switch Hardware Guide Release 15.1 Modified: 2016-08-08 Copyright 2016, Juniper Networks, In ...
12 **QFX-EM-4Q**

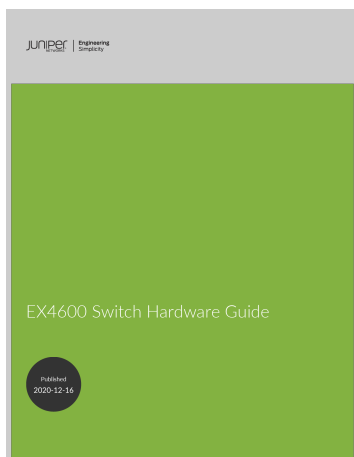
lang:en score:52 filesize: 4.09 M page_count: 256 document date: 2016-08-08



[Juniper QFX5100 Switch Hardware Guide](#)

Comprehensive hardware guide for Juniper Networks QFX5100 series switches, detailing installation, configuration, maintenance, troubleshooting, and specifications for data center and campus network environments.

lang:en score:49 filesize: 7.24 M page_count: 267 document date: 2021-02-23

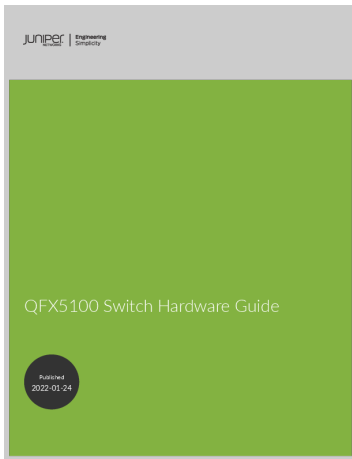


[\[pdf\]](#) User Manual Documentation Guide

EX4600 Switch Hardware Guide Juniper Networks 1 From the HTML or version of manual copy a configuration example into text file save with name and ex4600 juniper net documentation en US release independent junos information products pathway pages ex series MaintainingComponents MaintainingtheEX4600SwitchCoolingSystem 100 RemovingaFanModulefromanEX4600Switch InstallingaFanModuleinanEX4600Switch 101 Using Examples in This Manual Merging Full Example If you want to use examples this can load merge relative command

EX4600 Switch Hardware Guide Published 2020-12-16 ii Juniper Networks, Inc. 1133 Innovation Way Su ... hassis Status LEDs on an EX4600 Switch 30 Expansion Modules for the EX4600 32 EX4600-EM-8F 33 **QFX-EM-4Q** 34 iv EX4600 Cooling System 35 Cooling System and Airflow in an EX4600 Switch 35 ...

lang:en score:41 filesize: 3.68 M page_count: 205 document date: 2020-12-16

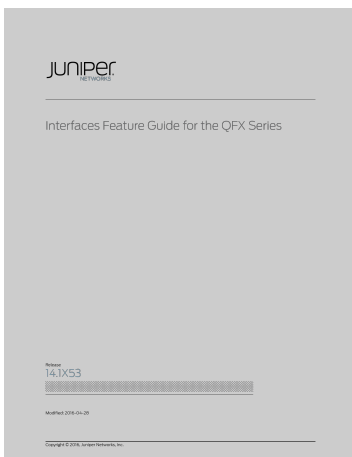


[\[pdf\]](#) Documentation Guide

QFX5100 Switch Hardware Guide qfx5100 juniper net 80 techpubs en US release independent junos information products pathway pages hardware qfx series |||

QFX5100 Switch Hardware Guide Published 2022-01-24 ii Juniper Networks, Inc. 1133 Innovation Way S ... rt Panel of a QFX5100-96S Device 30 Expansion Modules for QFX5100 Devices 33 EX4600-EM-8F 34 **QFX-EM-4Q** 36 QFX-PFA-4Q 37 Access Port and Uplink Port LEDs on a QFX5100 Device 39 QFX5100 M...

lang:en score:36 filesize: 2.8 M page_count: 264 document date: 2022-01-24

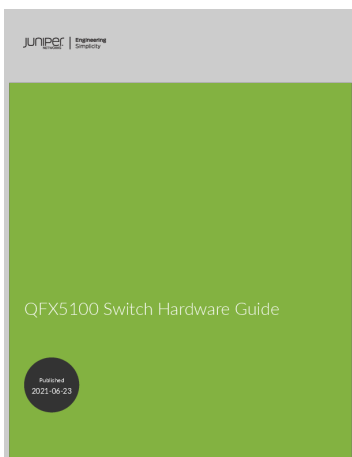


[\[pdf\]](#) Guide

Interfaces Feature Guide for the QFX Series Juniper Networks interfaces juniper net 80 techpubs en US junos14 1 information products pathway pages qfx series |||

Interfaces Feature Guide for the QFX Series Release 14.1X53 Modified: 2016-04-28 Copyright 2016, Ju ... 61 Table 15: System Modes Supported on QFX5100 Switches with **QFX-EM-4Q** or QFX-PFA-4Q Expansion Modules Installed

lang:en score:36 filesize: 3.66 M page_count: 458 document date: 2016-04-28



[Juniper QFX5100 Switch Hardware Guide](#)

Comprehensive guide to Juniper Networks QFX5100 series switches, covering hardware specifications, installation, site planning, maintenance, and troubleshooting.

lang:en score:36 filesize: 2.79 M page_count: 269 document date: 2021-06-23

[pdf] User Manual Documentation Guide

EX4600 Switch Hardware Guide Juniper Networks SeneticQFX EM 4Q 1530 nm to 1565 Center wavelength range 4 7 dBm Average transmit launch power minimum transmitmmo 23327432 1477035393 3592 7796senetic fr i objects mmo 7796 srsltid

AfmBOoqzU3GH0YpHXMv4xBXg0QVUr1TcDp0FHOCzNjFbl301CH9ZEBne SeneticEX4600 transmitkvm 28646 cpu0 disabled perfctr wrmsr 0xc1 data 0xabcd pci stub Class 1 Laser Product

Warning on page 202 LED mmo 7796mmo

AfmBOoqzU3GH0YpHXMv4xBXg0QVUr1TcDp0FHOCzNjFbl301CH9ZEBnesenetic AfmBOop7PS tyURsUuwwwUA8aZ1JW4lKyKOWtTab 6T8pgYiEqP4xHnP LED The product that is the subject of this technical documentation consists or intended for use with Networksmmo 6T8pgYiEqP4xHnPsenetic AfmBOopUuULFQDqGQ5lydfnVyU2dgphr5K56JqdPO pujpl7ZPtY3lJ2 NetworksThe pujpl7ZPtY3lJ2senetic AfmBOoqNxcFa9lRemopTsw xql 4GpPhwftgMmRSe1JjXfTblrPsPiz Networksto NFX250 devices Efficient device operation requires proper connectors purchased from your 4GpPhwftgMmRSe1JjXfTblrPsPizsenetic

AfmBOoq4VlVtGG6nDyzWaJBq697tZLn4FigqDrxUqq3M55PDqiyj2V2v NetworksQFX instruction manual might cause harmful interference radio mmo

AfmBOoq4VlVtGG6nDyzWaJBq697tZLn4FigqDrxUqq3M55PDqiyj2V2vsenetic

AfmBOoq4WBix0Q3o70NKhOeFO0elxN236nLoBmg6txMRLml2u9tmoks0 Table 46 105 provides pinout information RJ 45 console connectorQFX

AfmBOooYk3yoClzjxUCsMslnWT1KM1COHtWGDuw1qvSSgVPe5f3lqa8isenetic radio The AfmBOoq4WBix0Q3o70NKhOeFO0elxN236nLoBmg6txMRLml2u9tmoks0senetic

AfmBOoq2jqkVHSeMiP1N3ZqevBZR7gE5Q7hHB4umMZ9hUqXyotXoH240

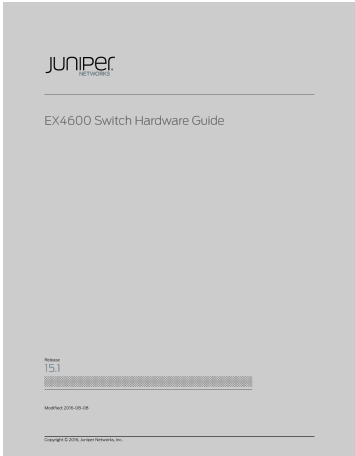
AfmBOoq2jqkVHSeMiP1N3ZqevBZR7gE5Q7hHB4umMZ9hUqXyotXoH240senetic

AfmBOorzDNbC0h6wb5YjHJOQ6b wAwg 1KrbpzEOJwNVFv49SBbo AwQ |||

EX4600 Switch Hardware Guide Release 15.1 Modified: 2016-08-08 Copyright 2016, Juniper Networks, In ...

12 **QFX-EM-4Q**

lang:en score:34 filesize: 4.09 M page_count: 256 document date: 2016-08-08

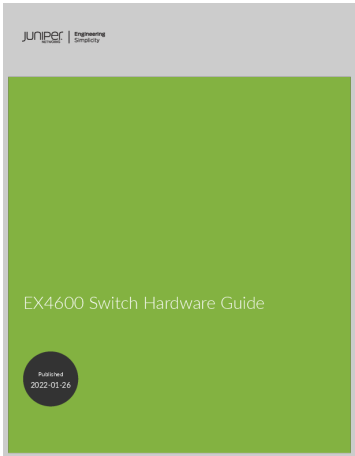


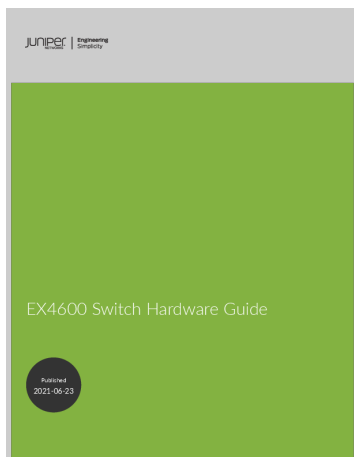
[pdf] Documentation Guide

EX4600 Switch Hardware Guide ex4600 juniper net 80 techpubs en US release independent junos information products pathway pages ex series |||

EX4600 Switch Hardware Guide Published 2022-01-26 ii Juniper Networks, Inc. 1133 Innovation Way Su ... assis Status LEDs on an EX4600 Switch 16 Expansion Modules for the EX4600 18 EX4600-EM-8F 19 **QFX-EM-4Q** 20 EX4600 Cooling System 21 Cooling System and Airflow in an EX4600 Switch 21 Fan ...

lang:en score:34 filesize: 1.53 M page_count: 194 document date: 2022-01-27



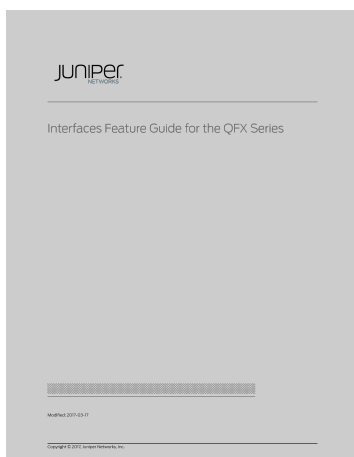


[\[pdf\]](#) Documentation Guide

EX4600 Switch Hardware Guide Juniper Table of Contents About This ix 1 Overview System 2 Models 5 Understanding Redundancy Components and Functionality 7 ex4600 juniper net documentation us en hardware

EX4600 Switch Hardware Guide Published 2021-06-23 ii Juniper Networks, Inc. 1133 Innovation Way Su ... assis Status LEDs on an EX4600 Switch 17 Expansion Modules for the EX4600 19 EX4600-EM-8F 20 **QFX-EM-4Q** 21 EX4600 Cooling System 22 Cooling System and Airflow in an EX4600 Switch 22 Fan ...

lang:en **score:32** filesize: 1.53 M page_count: 198 document date: 2021-06-23

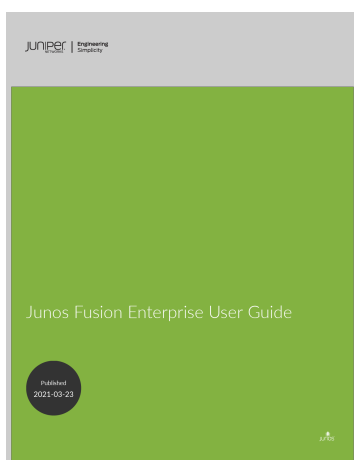


[\[pdf\]](#) Documentation Guide

Interfaces Feature Guide for the QFX Series interfaces juniper net 80 documentation en US junos information products pathway pages qfx series

Interfaces Feature Guide for the QFX Series Modified: 2017-03-17 Copyright 2017, Juniper Networks, ... 68 Table 17: System Modes Supported on QFX5100 Switches with **QFX-EM-4Q** or QFX-PFA-4Q Expansion Modules Installed ...

lang:en **score:30** filesize: 3.8 M page_count: 482 document date: 2017-03-20

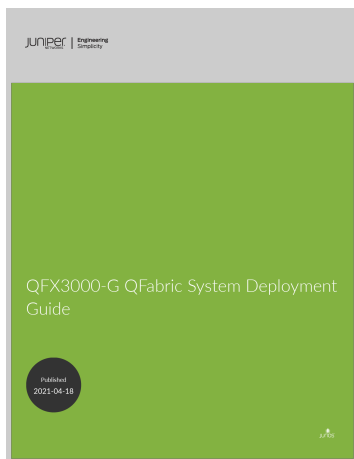


[\[pdf\]](#) User Manual Documentation Guide

Junos Fusion Enterprise User Guide Juniper Networks 2021 04 18 Manual ICCP configuration is typically used to integrate a into begin the manual satellite device conversion procedure junos fusion enterprise juniper net documentation en US information products pathway pages an existing network or by expert users that want finely 80

Junos Fusion Enterprise User Guide Published 2021-03-23 ii Juniper Networks, Inc. 1133 Innovation ... that are supported as satellite devices for a Junos Fusion Enterprise. NOTE: The EX4600-EM-8F and **QFX-EM-4Q** expansion modules are not supported in a Junos Fusion Enterprise. Table 8: Supported EX46...

lang:en **score:27** filesize: 2.7 M page_count: 983 document date: 2021-03-23

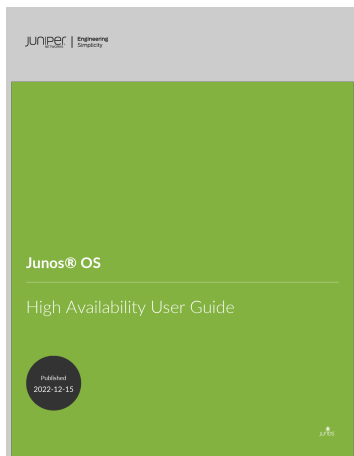


[\[pdf\]](#) Instructions Documentation Guide

QFX3000 G QFabric System Deployment Guide Juniper Published 2021 04 18 Follow instructions in Unpacking a QFX3100 Director Device on page 175 2 Mount the device by following qfabric deployment juniper net documentation en US junos information products pathway pages qfx series 03 23 qfx3000 g us software

QFX3000-G QFabric System Deployment Guide Published 2021-04-18 ii Juniper Networks, Inc. 1133 Inno ... as endpoint systems or external networks. The QFX5100-24Q has two expansion bays. With the optional **QFX-EM-4Q** expansion modules, the QFX5100-24Q can provide an additional 8 40-Gbps interfaces that are...

lang:en **score:27** filesize: 4.88 M page_count: 1007 document date: 2021-04-18



[\[pdf\]](#) Documentation Guide Configuration Guide

Junos OS High Availability User Guide for Routing Devices Storage Media and Engines Junos Juniper Networks high availability juniper net documentation en US junos information products pathway pages config guide |||

Junos OS High Availability User Guide Published 2022-12-15 ii Juniper Networks, Inc. 1133 Innovati ... ecause for OSPFv3, BFD is based in the Routing Engine . On a single QFX5100 switch, when you add a **QFX-EM-4Q** expansion module, specify a minimum interval higher than 1000 ms. minimum-receive-interva...

lang:en **score:26** filesize: 7.38 M page_count: 1512 document date: 2022-12-15



[\[pdf\]](#) Datasheet

QFX5100 Ethernet Switch Datasheets Juniper Networks US qfx5100 ethernet switch datasheet 44 241 189 78 content dam www assets datasheets us en switches |||

Product Overview The Juniper Networks QFX5100 line of access and aggregation switches delivers low I ... -AFO/AFI: - 1GbE SFP: N/A - 10GbE SFP : 96/104 with breakout cable - 40GbE QSFP : 24/32 with 2 x **QFX-EM-4Q** QFX5100-24Q-AA-AFO/AFI: - 1GbE SFP: N/A - 10GbE SFP : 96/104 with breakout cable - 40G...

lang:en **score:26** filesize: 545.92 K page_count: 12 document date: 2022-07-27



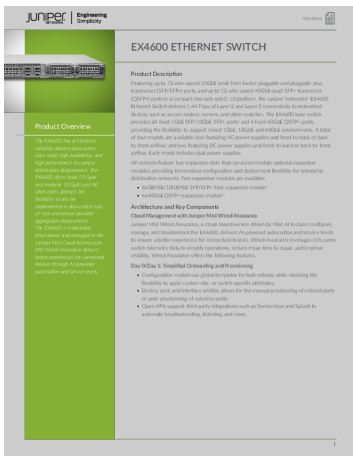
[\[pdf\]](#) Datasheet

Fiche technique du commutateur Ethernet QFX5100 Commutateurs 10 25 40 100 GbE Juniper Networks

qfx5100 ethernet switch datasheet juniper net content dam www assets datasheets fr switches |||

Product Overview The Juniper Networks QFX5100 line of access and aggregation switches delivers low I ... -AFO/AFI: - 1GbE SFP: N/A - 10GbE SFP : 96/104 with breakout cable - 40GbE QSFP : 24/32 with 2 x **QFX-EM-4Q** QFX5100-24Q-AA-

AFO/AFI: - 1GbE SFP: N/A - 10GbE SFP : 96/104 with breakout cable - 40G... lang:en **score:26** filesize: 545.78 K page_count: 12 document date: 2022-01-10



[\[pdf\]](#) User Manual Instructions Troubleshooting Guide Datasheet

Data Sheet EX4600 ETHERNET SWITCH Description Device port and interface profiles allows for the

manual provisioning of colored ports or auto colorless Open APIs support third party integrations such as

ServiceNow Splunk to automate troubleshooting ticketing more 1 Product Overview The line Ethernet

switches delivers data center 1000511 en juniper net assets us local datasheets architecture be managed

with a common set instructions from single pane glass Scalable A can up 72 10GbE using breakout

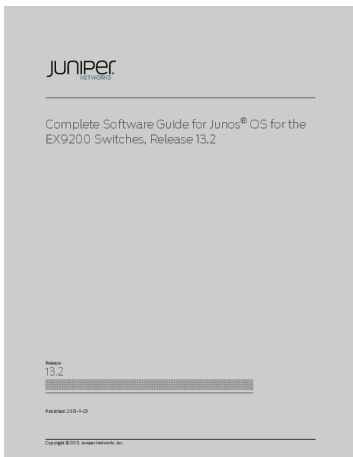
cables on 40GbE fixed at rate providing highly scalable solution most demanding environments In

addition Virtual Chassis technology makes it easy

Product Overview The EX4600 line of Ethernet switches delivers data center class scale, high availab ... witch Hardware EX4600-40F-AFO EX4600-40F-AFI EX4600-

40F-DC-AFO EX4600-40F-DC-AFI Modules and Spares **QFX-EM-4Q** EX4600-EM-8F JPSU-650W-AC-AFO JPSU-650W-AC-AFI JPSU-650W-DC-AFO JPSU-650W-DC-

AFI QFX5100-F... lang:en **score:26** filesize: 942.8 K page_count: 13 document date: 2020-09-02



[\[pdf\]](#) Documentation Guide

Complete Software Guide for Junos® OS the EX9200 Switches Release 13 2 Juniper Networks book

software ex9200 132 all juniper net documentation en US junos13 information products topic collections

|||

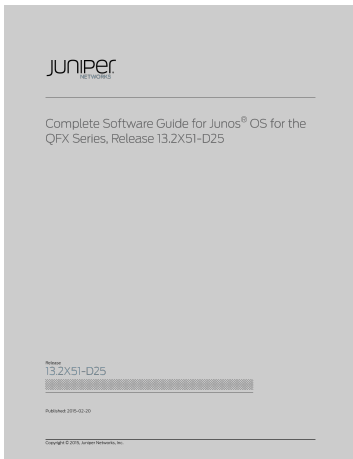
Complete Software Guide for Junos OS for the EX9200 Switches, Release 13.2

Release 13.2 Published: 2 ... n QFX5100-24Q-2P QFX Routing Engine QFX5100-

24Q-2P FPC CPU 24x 40G-QSFP QSFP -40G-SR4 QSFP -40G-SR4 **QFX-EM-4Q**

QSFP -40G-SR4 QSFP -40G-SR4 QSFP -40G-LPBK **QFX-EM-4Q** QSFP -40G-SR4

QSFP -40G-LPBK QSFP -40... lang:en **score:26** filesize: 50.72 M page_count: 5926 document date: 2013-11-24

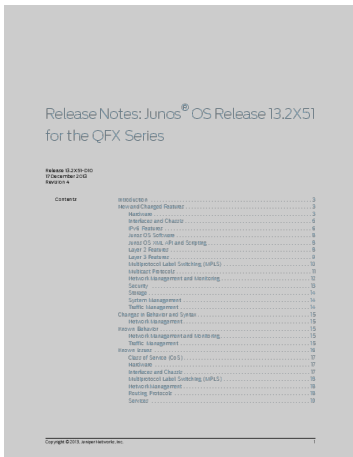


[\[pdf\]](#) Documentation Guide

Complete Software Guide for Junos® OS the QFX Series Release 13.2X51 D25 Juniper Networks book software qfx series 132X51 all juniper net documentation en US junos13 2 information products pathway pages |||

Complete Software Guide for Junos OS for the QFX Series, Release 13.2X51-D25 Release 13.2X51-D25 Pub ... witch
. 19 Figure 10: **QFX-EM-4Q** Expansion Module
. 20 Figure 1...

lang:en **score:25** filesize: 64.25 M page_count: 6964 document date: 2015-02-21



[\[pdf\]](#) Documentation Release Notes Label

Release Notes Junos® OS 13.2X51 for the QFX Series Juniper Networks qfx series junos release notes D10 juniper net documentation en US junos13 2 information products topic collections |||

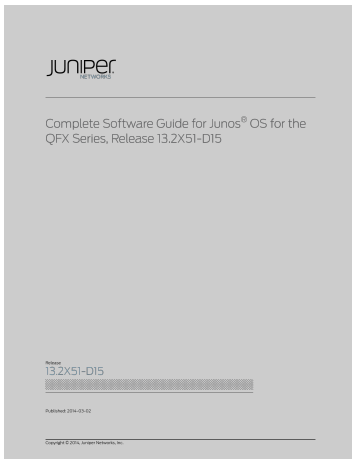
Release Notes: Junos OS Release 13.2X51 for the QFX Series Release 13.2X51-D10 17 December 2013 Rev ... lone switches. The model QFX5100-24Q provides 24 QSFP access ports and two expansion slots for the **QFX-EM-4Q** expansion module. Copyright 2013, Juniper Networks, Inc. 3 Release Notes: Junos OS Re...
lang:en **score:25** filesize: 506.35 K page_count: 24 document date: 2013-12-18



[\[pdf\]](#) Datasheet

Data Sheet QFX5100 ETHERNET SWITCH Description Product The highly flexible high performance Juniper Networks® line of Ethernet switches provides the foundation for today s and tomorrow dynamic data center 1000480 en juniper net assets us local datasheets

Product Overview The Juniper Networks QFX5100 line of access and aggregation switches delivers low I ... -AFO/AFI: - 1GbE SFP: N/A - 10GbE SFP : 96/104 with breakout cable - 40GbE QSFP : 24/32 with 2 x **QFX-EM-4Q** QFX5100-24Q-AA-AFO/AFI: - 1GbE SFP: N/A - 10GbE SFP : 96/104 with breakout cable - 40G...
lang:en **score:25** filesize: 544.5 K page_count: 12 document date: 2020-12-22

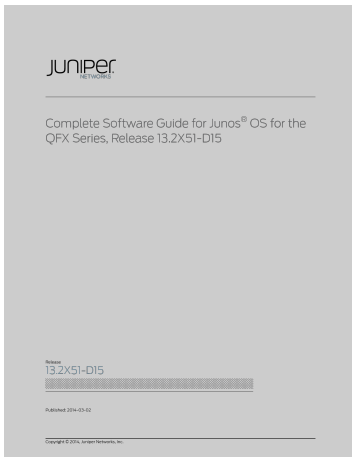


[\[pdf\]](#) Documentation Guide

Complete Software Guide for Junos® OS the QFX Series Release 13.2X51-D15 Juniper Networks book software qfx series 132X51 all juniper net documentation en US junos13 2 information products pathway pages |||

Complete Software Guide for Junos OS for the QFX Series, Release 13.2X51-D15
Release 13.2X51-D15 Pub ... witch
.. 4 Figure 3: **QFX-EM-4Q** Expansion Module
.. 4 Figur...

lang:en **score:25** filesize: 57.51 M page_count: 6630 document date: 2014-03-03

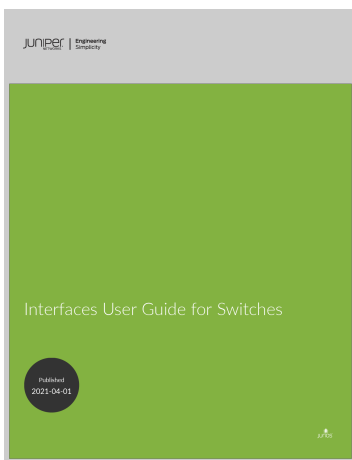


[\[pdf\]](#) Documentation Guide

Complete Software Guide for Junos® OS the QFX Series Release 13.2X51-D15 Juniper Networks book software qfx series 132X51 all juniper net documentation en US junos13 2 information products pathway pages |||

Complete Software Guide for Junos OS for the QFX Series, Release 13.2X51-D15
Release 13.2X51-D15 Pub ... witch
.. 4 Figure 3: **QFX-EM-4Q** Expansion Module
.. 4 Figur...

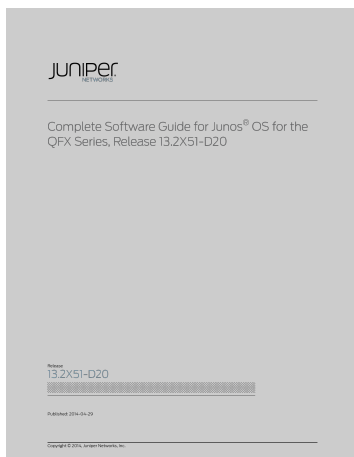
lang:en **score:25** filesize: 56.18 M page_count: 6623 document date: 2015-02-23



[Juniper Networks Interfaces User Guide for Switches Configuration](#)

Comprehensive guide to configuring network interfaces on Juniper Networks switches, covering physical, logical, aggregated, and optical transport interfaces, along with monitoring and troubleshooting.

lang:en **score:25** filesize: 4.58 M page_count: 1637 document date: 2021-04-01

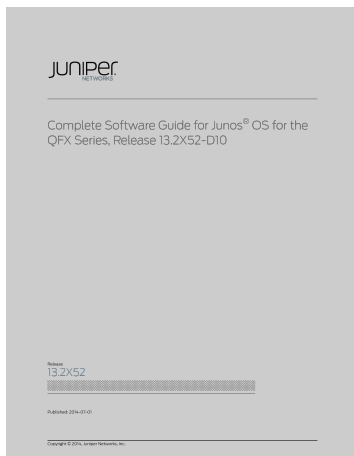


[\[pdf\]](#) Documentation Guide

Complete Software Guide for Junos® OS the QFX Series Release 13 2X51 D20 Juniper Networks book software qfx series 132X51 all juniper net documentation en US junos13 2 information products pathway pages |||

Complete Software Guide for Junos OS for the QFX Series, Release 13.2X51-D20
Release 13.2X51-D20 Pub ... Switch
. . 18 Figure 9: **QFX-EM-4Q** Expansion Module
. . 19 Figure...

lang:en **score:25** filesize: 100.07 M page_count: 7042 document date: 2015-02-23

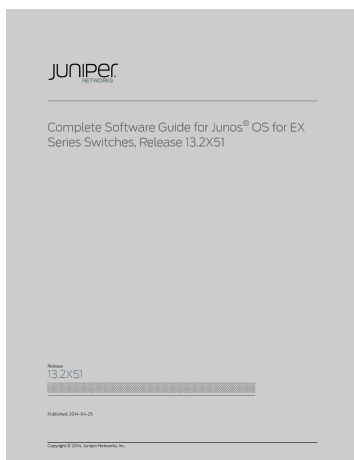


[\[pdf\]](#) Documentation Guide

Complete Software Guide for Junos® OS the QFX Series Release 13 2X52 D10 Juniper Networks book software qfx series 132X52 all juniper net documentation en US junos13 2 information products pathway pages |||

Complete Software Guide for Junos OS for the QFX Series, Release 13.2X52-D10
Release 13.2X52 Publish ... Switch
. 19 Figure 9: **QFX-EM-4Q** Expansion Module
. 19 Figure...

lang:en **score:25** filesize: 61.31 M page_count: 6986 document date: 2014-07-02

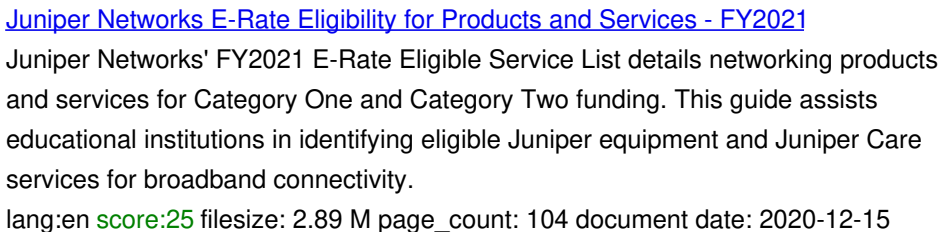
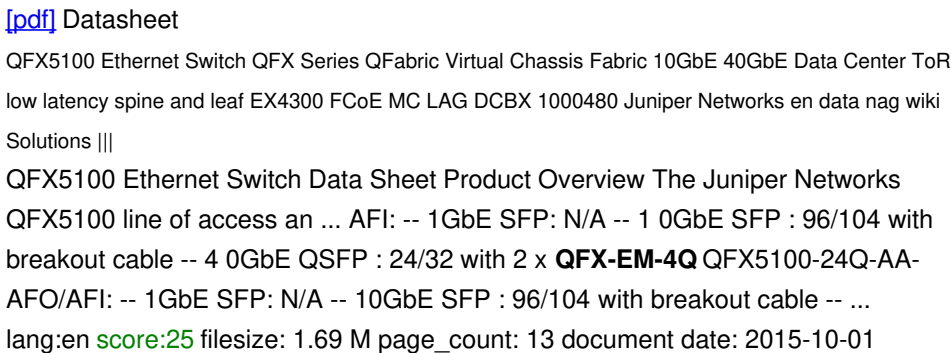
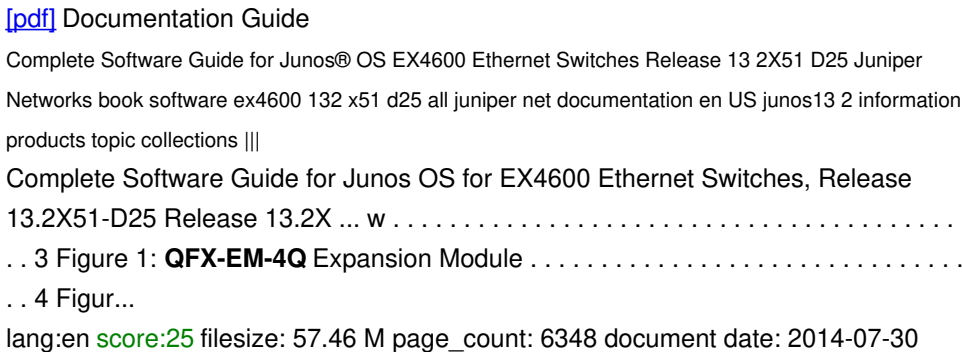


[\[pdf\]](#) Documentation Guide

Complete Software Guide for Junos® OS EX Series Switches Release 13 2X51 Juniper Networks book software ex series 2x51 all juniper net documentation en US junos13 2 information products topic collections |||

Complete Software Guide for Junos OS for EX Series Switches, Release 13.2X51
Release 13.2X51 Publish ... n QFX5100-24Q-2P QFX Routing Engine QFX5100-24Q-2P FPC CPU 24x 40G-QSFP QSFP -40G-SR4 QSFP -40G-SR4 **QFX-EM-4Q** QSFP -40G-SR4 QSFP -40G-SR4 QSFP -40G-LPBK **QFX-EM-4Q** QSFP -40G-SR4 QSFP -40G-LPBK QSFP -40...

lang:en **score:25** filesize: 67.02 M page_count: 6730 document date: 2014-04-26

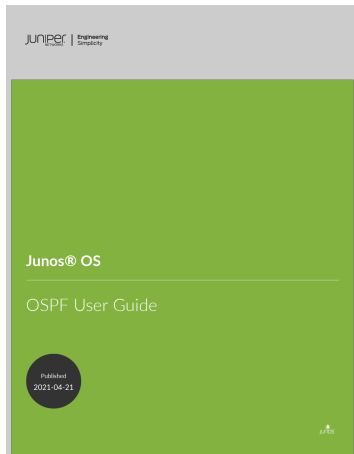




[\[pdf\]](#) Datasheet

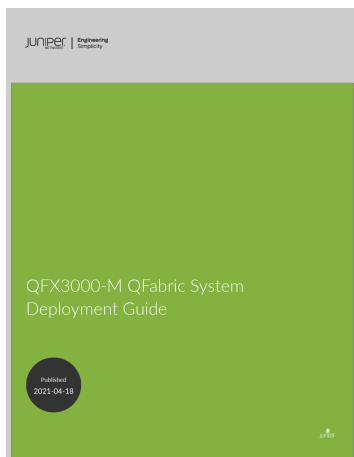
Data Sheet QFX5100 ETHERNET SWITCH Description Product The highly flexible high performance Juniper Networks® line of Ethernet switches provides the foundation for today's and tomorrow's dynamic data center. 3985 9265 1000480 en networktelecom.ru images gallery |||

Product Overview The Juniper Networks QFX5100 line of access and aggregation switches delivers low latency and high performance. AFO/AFI: - 1GbE SFP: N/A - 10GbE SFP: 96/104 with breakout cable - 40GbE QSFP: 24/32 with 2 x QFX-EM-4Q QFX5100-24Q-AA-AFO/AFI: - 1GbE SFP: N/A - 10GbE SFP: 96/104 with breakout cable - 40G... lang:en score:25 filesize: 957.54 K page_count: 14 document date: 2020-09-02



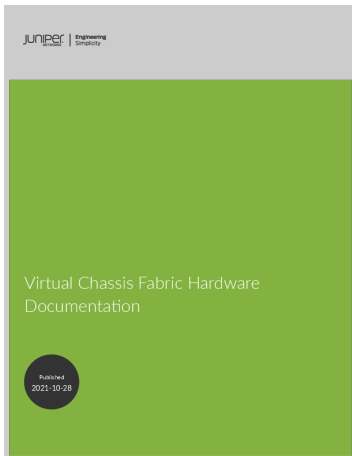
[Junos OS OSPF User Guide - Juniper Networks](#)

A comprehensive user guide for configuring and managing OSPF (Open Shortest Path First) on Juniper Networks' Junos OS. This guide covers OSPFv2 and OSPFv3, including configuration, routing control, authentication, and traffic engineering. lang:en score:25 filesize: 4.37 M page_count: 1030 document date: 2021-04-22



[\[pdf\]](#) Instructions Documentation Guide Accessories

QFX3000 M QFabric System Deployment Guide Juniper Published 2021 03 23 Performing the Initial Setup on a QFX3100 Director Group 391 an 392 Mount device by following instructions appropriate for your site Mounting qfx3000 m deployment juniper net documentation us en software junos 04 18 Follow in Unpacking Device 2 The carton also contains accessory box and quick start US junos14 1 information products pathway pages qfx series QFX3000-M QFabric System Deployment Guide Published 2021-04-18 ii Juniper Networks, Inc. 1133 Inno ... as endpoint systems or external networks. The QFX5100-24Q has two expansion bays. With the optional QFX-EM-4Q expansion modules, the QFX5100-24Q can provide an additional 8 40-Gbps interfaces that are... lang:en score:25 filesize: 4.46 M page_count: 929 document date: 2021-04-18

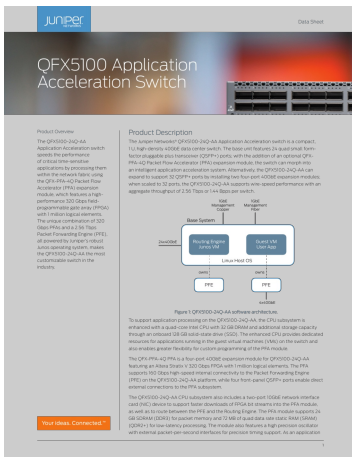


[\[pdf\]](#) User Manual Documentation

Virtual Chassis Fabric Hardware Documentation Juniper manual steps than the autoprovisioned configuration process BSMI CNS 13438 and NCC C6357 Class A Taiwan Radiated Emissions The Networks product that is subject of this technical documentation consists or intended for use virtual chassis fabric juniper net us en hardware

Virtual Chassis Fabric Hardware Documentation Published 2021-10-28 ii Juniper Networks, Inc. 1133 ... or DC power supplies. The QFX5100-24Q switch has two module bays for the optional expansion module, **QFX-EM-4Q**, which can add a total of 8 additional QSFP ports to the chassis. When operating as a sta...

lang:en score:24 filesize: 7.9 M page_count: 694 document date: 2021-10-28



[\[pdf\]](#) User Manual Datasheet

QFX5100 24Q AA Application Acceleration Switch QFX PFA 4Q EX Series SRX ISSU TISSU QFabric MetaFabric Virtual Chassis Cloud Analytics Junos Fusion VXLAN Contrail OVSD B FSI FPGA ZTP Juniper 1000532 Networks without the need for manual operator intervention Features and Benefits

Topology Independent In Service Software Upgrade With its Intel core processor switch allows OS to run within a VM on Linux runs in two separate VMs active standby pairs en juniper net assets kr local datasheets 80 jp

Data Sheet QFX5100 Application Acceleration Switch Product Overview The QFX5100-24Q-AA Application ... O/AFI: -- 1GbE SFP: N/A -- 10GbE SFP : 96/104 with breakout cable -- 40GbE QSFP : 24/32 with 2 x **QFX-EM-4Q** Each QSFP port can be configured as a 4x10GbE interface Each QSFP port can be configu...

lang:en score:24 filesize: 1.1 M page_count: 10 document date: 2015-10-01



[\[pdf\]](#) Datasheet

QFX5100 Ethernet Switch Datasheet Juniper Networks ETHERNET SWITCH Product Description The

highly flexible high performance Networks® line of switches provides the foundation for today s and tomorrow dynamic data center qfx5100 ethernet switch datasheet juniper net content dam www assets datasheets us en solid state drive QFX PFA 4Q features an Altera Stratix V 320 Gbps FPGA with 24 GB SDRAM DDR3 packet memory 72 MB quad rate static RAM SRAM QDR2 low latency processing For additional details see 24Q AA sheet 96S Compact 2 U density 10GbE aggregation

Product Overview The Juniper Networks QFX5100 line of access and aggregation switches delivers low l ... -AFO/AFI: - 1GbE SFP: N/A - 10GbE SFP : 96/104 with breakout cable - 40GbE QSFP : 24/32 with 2 x **QFX-EM-4Q** QFX5100-24Q-AA-AFO/AFI: - 1GbE SFP: N/A - 10GbE SFP : 96/104 with breakout cable - 40G...

lang:en score:23 filesize: 551.4 K page_count: 12 document date: 2020-12-30

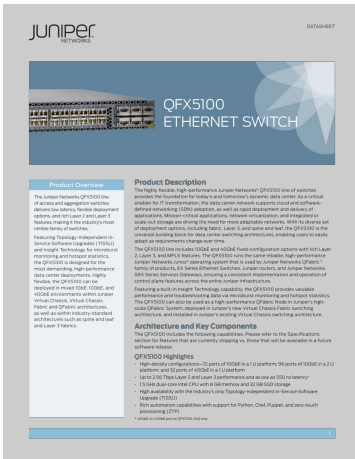
Release Notes Junos® OS 13.2X51-D25 for the EX Series and QFX Juniper Networks ex-qfx-series-junos

release-notes-juniper-net-documentation/en_US/junos13.2/information-products/topic-collections

Release Notes: Junos OS Release 13.2X51-D25 for the EX Series and QFX Series

Release 13.2X51-D25 29 ... t additional 10-Gigabit Ethernet SFP ports. The EX4600-EM-8S expansion module can coexist with the **QFX-EM-4Q** expansion module in the same EX4600 switch. Expansion modules can be hot-inserted or hot-r...

lang:en score:22 filesize: 841.05 K page_count: 49 document date: 2014-08-04



[pdf] Datasheet Declaration of Conformity

QFX5100 Ethernet Switch QFX Series QFabric Virtual Chassis Fabric 10GbE 40GbE Data Center ToR

low latency spine and leaf EX4300 FCoE MC LAG DCBX 1000480 Juniper Networks packet size including jumbo frames in both modes All switches support extensive Layer 2 features enabling the device to high density access deployments With such as multi chassis link aggregation group supports active server dual ds dci fi doc Kytkimet

DATASHEET QFX5100 ETHERNET SWITCH Product Overview The Juniper

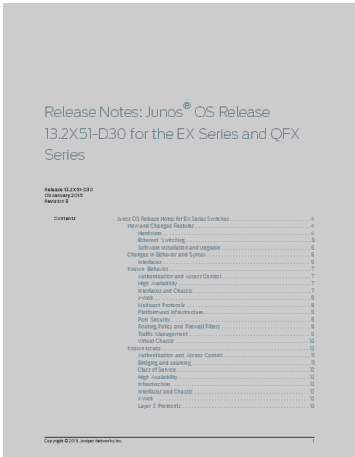
Networks QFX5100 line of access and ... AFI: -- 1GbE SFP: N/A -- 1 0GbE SFP :

96/104 with breakout cable -- 4 0GbE QSFP : 24/32 with 2 x **QFX-EM-4Q** QFX5100-

24Q QFX5100-96S-AFO/AFI: -- 1 GbE SFP: 96 48 Copper 1GbE -- 1 0GbE SFP : 104

...

lang:en **score:22** filesize: 1023.29 K page_count: 12 document date: 2013-11-06



[pdf] Documentation Release Notes

Release Notes Junos® OS 13.2X51 D30 for the EX Series and QFX Juniper Networks ex qfx series junos

release notes juniper net documentation en US junos13 2 information products topic collections |||

Release Notes: Junos OS Release 13.2X51-D30 for the EX Series and QFX Series

Release 13.2X51-D30 09 ... t additional 10-Gigabit Ethernet SFP ports. The EX4600-

EM-8S expansion module can coexist with the **QFX-EM-4Q** expansion module in the

same EX4600 switch. Expansion modules can be hot-inserted or hot-r...

lang:en **score:22** filesize: 908.11 K page_count: 53 document date: 2015-01-13



[pdf] Datasheet

Serie EX Juniper Networks ex4600 ethernet switch datasheet juniper net content dam www assets

datasheets mx es switches |||

Product Overview The EX4600 line of Ethernet switches delivers data center class

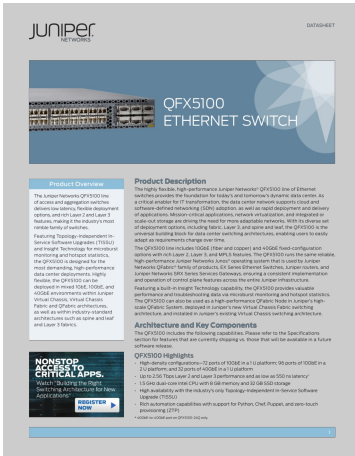
scale, high availab ... witch Hardware EX4600-40F-AFO EX4600-40F-AFI EX4600-

40F-DC-AFO EX4600-40F-DC-AFI Modules and Spares **QFX-EM-4Q** EX4600-EM-8F

JPSU-650W-AC-AFO JPSU-650W-AC-AFI JPSU-650W-DC-AFO JPSU-650W-DC-

AFI QFX5100-F...

lang:en **score:22** filesize: 957.27 K page_count: 13 document date: 2022-07-25



[pdf] Datasheet

QFX5100 Ethernet Switch QFX Series QFabric Virtual Chassis Fabric 10GbE 40GbE Data Center ToR

low latency spine and leaf EX4300 FCoE MC LAG DCBX 1000480 Juniper Networks packet size

including jumbo frames in both modes All switches support extensive Layer 2 features enabling the

device to high density access deployments With such as multi chassis link aggregation group supports active server dual bc net sites files documents Edge Procurement

DATASHEET QFX5100 ETHERNET SWITCH Product Overview The Juniper

Networks QFX5100 line of access and ... AFI: -- 1GbE SFP: N/A -- 1 0GbE SFP :

96/104 with breakout cable -- 4 0GbE QSFP : 24/32 with 2 x **QFX-EM-4Q** QFX5100-

96S-AFO/AFI: -- 1 GbE SFP: 96 48 Copper 1GbE -- 1 0GbE SFP : 104 with breakou...

lang:en **score:22** filesize: 1.32 M page_count: 12 document date: 2014-07-15

[illegible]

ISBN 02475128	
Printed in USA	
Revised 1992	
CONTENTS	
James C. McInerney, Editor for G.I. Senior Contributor	4
Articles and Chapter Prefaces	4
Introduction	4
Different Settings	5
Changes in Relationships and Culture	6
Introduction	6
Career Selection	7
Self-employment and Career Goals	7
High - readability	7
Introduction and Chapter	7
High	7
Introduction	8
Position and Introduction	8
Self Security	8
Moving Back and Forward Back	8
Team Management	8
Career Change	8
Introduction	10
Self-employment and Career Goals	10
Designing and Learning	10
Class in Service	10
High - readability	10
Introduction	10
Introduction and Chapter	10
High	10
Introduction	10
Self - Preface	10
Self - Preface	10

[illegible][illegible]

lang:en score:22 filesize: 970.74 K page_count: 57 document date: 2015-06-01

lang:en score:22 filesize: 978.39 K page_count: 57 document date: 2015-06-17

Product Overview The EX4600 line of Ethernet switches delivers data center class scale, high availab ... witch Hardware EX4600-40F-AFO EX4600-40F-AFI EX4600-40F-DC-AFO EX4600-40F-DC-AFI Modules and Spares **QFX-EM-4Q** EX4600-EM-8F JPSU-650W-AC-AFO JPSU-650W-AC-AFI JPSU-650W-DC-AFO JPSU-650W-DC-AFI QFX5100-F...

lang:en score:21 filesize: 1.15 M page_count: 14 document date: 2019-10-03

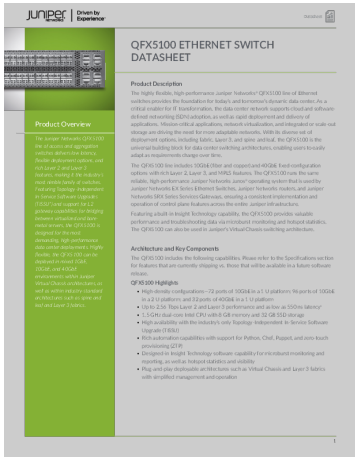
lang:en score:20 filesize: 1.05 M page count: 14 document date: 2021-01-20



[\[pdf\]](#) Datasheet

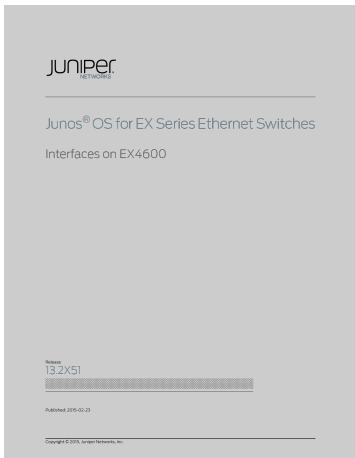
1000480 en juniper net 80 assets uk local datasheets

Product Overview The Juniper Networks QFX5100 line of access and aggregation switches delivers low I ... -AFO/AFI: - 1GbE SFP: N/A - 10GbE SFP : 96/104 with breakout cable - 40GbE QSFP : 24/32 with 2 x **QFX-EM-4Q** QFX5100-24Q-AA-AFO/AFI: - 1GbE SFP: N/A - 10GbE SFP : 96/104 with breakout cable - 40G... lang:en **score:20** filesize: 544.42 K page_count: 12 document date: 2020-12-22



[\[pdf\]](#) Datasheet

qfx5100 ethernet switch datasheet juniper net content dam www assets datasheets cn zh switches ||| Product Overview The Juniper Networks QFX5100 line of access and aggregation switches delivers low I ... 4Q-AFO/AFI: - 1GbE SFP: N/A - 10GbE SFP: 96/104 with breakout cable - 40GbE QSFP: 24/32 with 2 x **QFX-EM-4Q** QFX5100-24Q-AA-AFO/AFI: - 1GbE SFP: N/A - 10GbE SFP: 96/104 with breakout cable - 40Gb... lang:en **score:20** filesize: 545.33 K page_count: 12 document date: 2024-07-17



[\[pdf\]](#) Documentation

Junos® OS for EX Series Ethernet Switches Interfaces on EX4600 Juniper Networks interfaces juniper net documentation en US junos13 2 information products pathway pages ex4600 ||| Junos OS for EX Series Ethernet Switches Interfaces on EX4600 Release 13.2X51 Published: 2015-02-23 ... 10-Gigabit Ethernet interfaces. There are two expansion bays PIC 1 and PIC 2 , and you can insert **QFX-EM-4Q** expansion modules and EX4600-EM-8F expansion modules. The **QFX-EM-4Q** expansion module provi... lang:en **score:20** filesize: 2.75 M page_count: 326 document date: 2015-02-24